

REMARKS

In the Office Action, the Examiner rejected claims 1-38. By this paper, Applicants have amended claims 1, 9, 13, 16, 24, 25, 29, 33, and 36-38, cancelled claims 7, 12, 14, 15, 19, 28, 30, and 31, and added claims 39-46. These amendments do not add any new matter. Upon entry of these amendments, claims 1-6, 8-11, 13, 16-18, 20-27, 29, and 32-46 are pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Claim Rejections under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claim 13 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. Specifically, the Examiner stated:

In line 2, the limitation “wherein each of the multiple target groups is addressable with a single base memory address” renders the claim indefinite in that it does not clearly and specifically state whether “each of the multiple target groups” requires each, individually, “a single base memory address” or whether “a single base memory address” is addressing each (i.e. all) of the multiple target groups. The limitation as such is ambiguous.

Final Office Action, page 5.

Although Applicants believe that claim 13, as originally presented, was sufficiently clear and definite, Applicants have amended claim 13 in the interest of clarification.

Specifically, Applicants have amended claim 13 to recite “accessing a plurality of target devices, wherein the plurality of target devices are divided into a plurality of groups, wherein each of the plurality of groups is associated with a single base memory address configured to address the target devices within that group.” Applicants do not believe that this amendment has clarified not narrowed the scope of claim 13. In light of this amendment, Applicants respectfully request withdrawal of the Examiner’s rejection under 35 U.S.C. § 112, second paragraph.

Claim Rejections under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-23 and 25-31 under 35 U.S.C. § 102(e) as being unpatentable over Leung et al. (U.S. Patent No. 6,272,577, hereafter “the Leung reference”) and rejected claim 32 under 35 U.S.C. § 102(e) as being unpatentable over Gupta (U.S. Patent No. 6,405,286, hereafter “the Gupta reference”). Applicants respectfully traverse this rejection.

Legal Precedent

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under Section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du*

Pont, 750 F.2d 1569 (Fed. Cir. 1984). The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

Claims 1-23 and 25-31

Applicants respectfully assert that several features of independent claims 1, 9, 16, and 25, as amended, are not disclosed by the Leung reference. For example, independent claim 1, as amended, recites a method comprising “sending a multicast transaction to a *single base address* associated with each of the plurality of target devices.” (Emphasis added).

Independent claim 9, as amended, recites a method comprising “accessing a second portion of memory...wherein the first and second portions of memory are *accessed with a single basic address* associated with the first target device and the second target device.” (Emphasis added). Independent claim 16, as amended, recites a computer system comprising “an initiator device...wherein the initiator device is configured to multicast the transaction request to the plurality of target devices *using a single base address*.” (Emphasis added).

Independent claim 25, as amended, recites a computer system comprising “an initiator device ...wherein the initiator device is configured to multicast the transaction request to the plurality of target devices *using a single base address* associated with the plurality of target devices.” (Emphasis added).

In sharp contrast, the Leung reference fully discloses a memory device 100 in which memory modules 111-128 each have *their own base memory address*. See Leung, col. 10, lines 20-24; *see also* Fig. 1. More specifically, the Leung reference explains that: “The complete address to any memory location in any of the memory modules 111-128 contains 4 fields. A first field [that] contains a base address which identifies the memory module by communication address.” *Id.* The second field contains a memory array identifier and third and fourth fields identify the desired row and columns within the memory array (*i.e.*, the second, third, and fourth fields also identify only a single memory module 111-128). See col. 10, lines 24-28; *see also* Fig. 4. In other words, the Leung reference discloses using several base addresses with one base memory address per device - not addressing a plurality of memory modules with a *single* base address, as the Examiner has alleged. As such, the Leung reference cannot disclose the above-recited claim features. For at least these reasons, Applicants respectfully assert that the Leung reference cannot anticipate independent claims 1, 9, 16, and 25, as amended, or the claims that depend therefrom.

Claim 32

The Examiner rejected claim 32 under 35 U.S.C. § 102 as being anticipated by the Gupta reference. Applicants respectfully assert that several features of independent claim 32 are not disclosed by the Gupta reference. For example, claim 32 recites a computer comprising “a plurality of devices...wherein each of the devices simultaneously accesses its associated interleave memory region *in response to a single transaction request*.” (Emphasis

added). Contrary to the Examiner's assertions, however, the Gupta reference merely discloses a system which interleaves memory such that "multiple CPUs *tend not to access* the same memory bank at the same time," Gupta, col. 6, lines 22-25 (emphasis added). There is no mention in the Gupta reference of simultaneous accesses "in *response to the single transaction request*," as recited in claim 32 (emphasis added). For this reason, Applicants assert that the Examiner has not established a *prima facie* case of anticipation with regard to claim 32. As such, Applicants respectfully request that the Examiner withdraw the rejection and allow independent claim 32.

Claim Rejections under 35 U.S.C. § 103(a)

As stated above, the Examiner rejected claims 33-38 as being unpatentable over the Gupta reference in view of the Leung reference. Applicants respectfully traverse this rejection.

Legal Precedent

First, the burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the

combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).). The Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

Deficiencies of the Rejections

Applicants respectfully assert that several features of claims 33-38 are not disclosed by the Gupta reference or the Leung reference, taken alone, or in combination with each other. For example, independent claim 33 recites “associating the plurality of target devices with *a single base memory address*; and executing a memory access using the single base memory address.” (Emphasis added). Independent claim 36, as amended, recites “coded to associate the *single base address* with a plurality of interleave memory regions.” (Emphasis added).

Applicants believe that claims 33-38 are allowable because the cited references do not teach or suggest, alone or together, the claims features recited above. The Examiner conceded in the Final Office Action that the Gupta reference “does not specifically teach associating the plurality of target devices with a single base address,” and relied on the Leung reference to disclose these features. *See* Final Office Action, page 17. However, as described above with

regard to claims 1-23 and 25-31, the Leung reference does not disclose a “single base address,” as recited in independent claims 33 and 35. For at least this reason, it is clear that the Gupta reference and the Leung reference, taken alone or in combination, fail to teach or suggest the above-recited features of independent claims 33 and 35. As such, Applicants assert that independent claims 33 and 35, as well as the claims that depend thereon, are patentable over the Gupta reference in light of the Leung reference.

New Claims

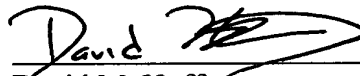
Applicants respectfully requests that new dependent claims 39-46 be considered. These claims are fully supported by the specification, and Applicants respectfully submit that the prior art of record does not disclose the recited subject matter of claims 39-46. For this reason, Applicants respectfully submit that new claims 39-46 are allowable over the cited references, taken alone or in combination with each other.

Conclusion

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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